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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,671	02/09/2007	Hyeok Deok Kim	0465-1494PUS1	3792
2292 7590 12/01/2009 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER				
LE, THANH TAM T				
ART UNIT		PAPER NUMBER		
2839				
NOTIFICATION DATE		DELIVERY MODE		
12/01/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

### Office Action Summary

**Application No.**

10/562,671

**Applicant(s)**

KIM, HYEOK DEOK

**Examiner**

Thanh-Tam T. Le

**Art Unit**

2839

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/CD)  
Paper No(s)/Mail Date 5/18/09
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (6,460,382) in view of Lim (7,251,962).**

Regarding claims 1, 9 and 17, Kim et al. In figures 2-9, disclose a direct drive motor in a washing machine comprising a stator (14) having a winding portion with coils wound thereon, a rotor having a sidewall (13b), and a rear wall (13a) with a pass through hole (131) at a center, Kim et al. also disclose a connector (16) of resin having a vibration mode different from a washing shaft, fixedly secured to the rear wall of the rotor for supporting the washing shaft and coupling means for coupling the connector and the rotor together. Kim et al. fail to show an annular washer.

Lim in figures 3 and 5, teaches a motor having a washer (above a nut (35)). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the direct drive motor of Kim et al. with an addition of a washer as taught by Lim in order to absorb vibration from the rotor housing.

Regarding claim 2, Kim discloses the rotor, which is constructed of steel plate by pressing, to form the side wall and the rear wall as one body.

Regarding claim 3, Kim in combination with Lim teaches the rotor having fastening pass through holes around the pass through hole. The washer has fastening pass through holes (125) on a surface thereof in correspondence to the fastening pass through holes in the rear wall of the rotor. The connector has fastening pass through holes in correspondence to the fastening pass through holes in the rotor, and the coupling means includes bolts inserted through the fastening pass through holes and nuts fastened to threads on the bolts, for holding the connector, rotor, and washer.

Regarding claim 4, Lim teaches the annular washer further including positioning holes in which the positioning projection on the connector are placed respectively separate from the fastening pass through hole.

Regarding claim 5, Lim teaches the positioning holes, which are formed along a circumferential direction of an imaginary circle having a diameter different from an imaginary circle connecting centers of the fastening pass through holes in the annular washer.

Regarding claim 6, Lim teaches the rotor further including a hub projected from the rear wall toward the washing shall for reinforcing strength, and providing a seating surface.

Regarding claim 7, Lim teaches the annular washer including a bent portion on a circumference having a shape in conformity with a shape of a bent portion of the hub.

Regarding claim 8, Lim teaches the annular washer, which is in close contact with, and fixedly secured to an outer side of the rear wall of the rotor, and the connector is mounted on an inner side of the rear wall of the rotor.

Regarding claim 10, Kim et al. disclose the rotor, which is constructed of steel plate by pressing, to form the side wall and the rear wall as one body.

Regarding claim 11, Lim teaches the fastening bosses on the annular washer that are in at least two lines in a circumferential direction as imaginary circles connecting centers of the fastening bosses have diameters different from each other.

Regarding claim 12, Kim et al. in combination with Lim disclose the annular washer including positioning holes in which the positioning projections (160) on the connector are placed respectively, separate from the fastening bosses of the washer from Lim.

Regarding claims 13 and 19, Kim et al. in combination with Lim disclose the positioning holes, which are formed along a circumferential direction of an imaginary circle having a diameter different from an imaginary circle connecting centers of the fastening pass bosses on the annular washer.

Regarding claims 14 and 18, Kim et al. disclose the rotor including a hub (201) projected from the rear wall toward the washing shaft for reinforcing strength, and providing a seating surface

Regarding claims 15 and 20, Lim teaches the annular washer including a bent portion (see figure 5) on a circumference having a shape in conformity with a shape of a bent portion of the hub.

Regarding claim 16, Kim et al. in combination with Lim disclose the annular washer, which is in close contact with, and fixedly secured to an outer side of the rear

wall of the rotor, and the connector is mounted on an inner side of the rear wall of the rotor.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh-Tam T. Le whose telephone number is 571-272-2094. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TC Patel can be reached on 571-272-2098. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thanh-Tam T. Le/  
Primary Examiner, Art Unit 2839.  
11/22/09.